

Claims Listing:

Claims 1-35. (Canceled)

36. (NEW) A cell-scaffold composition prepared in vitro for growing cells to produce functional vascularized organ tissue in vivo, comprising:

a porous three-dimensional scaffold composed of a biocompatible polymer and having generally interconnected pores of between approximately 100 and 300 microns in diameter throughout the scaffold and distribution channels molded into the scaffold as a means for introduction of parenchymal cells into the scaffold following implantation into a patient;

wherein the biocompatible polymer comprises a polyanhydride;

wherein the scaffold provides sufficient surface area to permit attachment of an amount of the cells effective to produce functional vascularized organ tissue in vivo;

wherein the scaffold is resistant to compression within the patient, thereby maintaining the pore size of the scaffold between approximately 100 and 300 microns; and

wherein the scaffold comprises growth factors.